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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,560	01/04/2002	Eyal Dotan	8221-84872	7101

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EXAMINER
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HOFFMAN, BRANDON S

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/037,560

Applicant(s)

DOTAN, EYAL

Examiner

Brandon S. Hoffman

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-16,19,21,23,24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-16,19,21,23,24 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7-28-06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. Claims 1-6, 8-16, 19, 21, 23, 24, and 26 are pending in this action.
2. Applicant's arguments, filed July 31, 2006, have been considered and are persuasive. However, a new ground of rejection is made.

### *Rejections*

3. The text of those sections of Title 35, U.S. Code that are not included in this rejection can be found in a prior Office action.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3-6, 8, 10-16, 19, 21, 23, 24, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Keronen (U.S. Patent No. 6,871,277).

Regarding claims 1 and 13, Keronen teaches a process/computer-readable medium for protecting a computer from hostile code, the process comprising:

- Defining at least two trust groups, each of the defined trust groups being characterized by a trust group value (col. 5, lines 25-30);
- Assigning objects and processes in the computer to one of said trust groups; irrespective of the rights of a user of said computer (col. 5, lines 19-25);
- Defining at least two object types (col. 4, line 61 through col. 5, line 18);
- Assigning an object type to each of the objects (col. 4, lines 61-64);
- Defining an action rule for each combination of process trust group value, object trust group value, and object type (fig. 4-7); and
- Upon an access request by a requesting process to a target object, performing the action indicated by the action rule applicable to the trust group value of the requesting process, the trust group value of the target object, and the object type (fig. 4-7 and accompanying description).

Regarding claim 3, Keronen as modified by Replace2 teaches further comprising changing the trust group of the process if the trust group value of the process is greater than the trust group value of the object (col. 5, lines 25-26).

Regarding claim 4, Keronen as modified by Replace2 teaches further comprising changing the trust group of said object after performing said action (col. 6, lines 1-5).

Regarding claim 5, Keronen as modified by Replace2 teaches further comprising, upon creation of an object by a process, assigning said created object to the trust group of said process (col. 4, lines 46-60).

Regarding claim 6, Keronen as modified by Replace2 teaches further comprising defining at least two operation types and wherein said combination includes at least one of said operation types (fig. 6 and fig. 7).

Regarding claim 8, Keronen as modified by Replace2 teaches further comprising assigning said process to the trust group of said object if the trust group of said process is higher than the trust group of said object (fig. 6).

Regarding claim 10, Keronen as modified by Replace2 teaches further comprising: defining at least two process types; assigning processes to one of said process types; and wherein said combination includes at least one of said process types (fig. 4-7).

Regarding claims 11 and 16, Keronen as modified by Replace2 teaches wherein said object types comprise passive code and executable code (col. 4, lines 61-66).

Regarding claims 12 and 15, Keronen as modified by Replace2 teaches wherein said operation types comprise open, read, create, modify, and delete (fig. 6 and fig. 7).

Regarding claim 14, Keronen as modified by Replace2 teaches further comprising instructions causing the computer to: define a table of types of at least two types of objects, the objects in the computer being assigned one type (col. 4, line 61 through col. 5, line 18); and wherein said plurality of rules defines said actions further based on the type of said object (fig. 4-7).

Regarding claims 19 and 21, Keronen teaches wherein the computer is operatively coupled to a network, the network including a server, the table of trust groups/rules is stored in said server (col. 7, lines 52-54).

Regarding claim 23, Keronen teaches a computer comprising:

- A random access memory (fig. 9, ref. num 906);
- A non-volatile memory (fig. 9, ref. num 912);
- A processor coupled to said RAM and said non-volatile memory (fig. 9, ref. num 904);
- Wherein said non-volatile memory comprises:
  - A list of object types (col. 4, line 61 through col. 5, line 18);
  - A list of rules, each rule defining an action based on an object type (fig. 4-7);
  - A list of object trust groups, each trust group defining an object trust value and coupled to at least one of said rules (col. 5, lines 25-30);

- A plurality of objects, each of said objects having an object type and assigned to one of said trust groups (col. 5, lines 19-25); and
- Wherein when a process is created in said RAM from an originating object of one of said objects, said processor assigns to said process a process trust value equal to the object trust value of said originating object (fig. 4-7).

Regarding claim 24, Keronen as modified by Replace2 teaches further comprising a controller receiving operation requests from said process to be performed on a target object of one of said objects and, upon receiving said requests said controller access said list of object trust groups, list of rules, and list of object type to determine whether to allow the operation (fig. 1, ref. num 104 and col. 6, lines 1-5).

Regarding claim 26, Keronen as modified by Replace2 teaches wherein when the controller allows the operation request but the process trust value is lower than the target object trust value, said processor resets the process trust value equal to that of the target object trust value (fig. 6).

### ***Claim Rejections - 35 USC § 103***

6. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keronen (USPN '277).

Regarding claim 2, Keronen teaches all the limitations of claim 1, above. However, Keronen does not specifically teach wherein a process is assigned upon creation to the trust group assigned to the passive code from which the process is created. However, Keronen does teach that the entities are encapsulated, using such as language as Java (col. 4, lines 46-60).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine assigning a process to a trust group based on the trust group value of the process that creates it, with the process/medium of Keronen. It would have been obvious for such modifications because like encapsulation, inheritance, is one of the three requirements for an object oriented language, like Java. The entities are encapsulated, as taught by Keronen, but must also have inheritance in order to comply with the object oriented requirements of Java.

Regarding claim 9, Keronen teaches wherein upon a restart of said process, the trust group of said process reverts to the original trust group of the object from which the process was created (the entities are created in software that reverts back to its original values when restarted).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.



Art Unit: 2136

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser G. Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Branda 9/2/06*

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*[Signature]*  
10/16/06